What is new with women and heart disease

Sandi Birchem, D.O.
Cardiologist
Instructor of Medicine
College of Medicine
Cardiovascular Division
Mayo Clinic
**Multiple blockages**
In any artery, plaques can form multiple narrowed areas (stenosis) or blockages (occlusions). These plaques limit blood flow.

**Unstable plaques**
Some plaques become unstable, developing cracks in the lining and rupturing, which allows fat and other substances to pour into the artery.

**Dangerous clot**
A blood clot forms where plaques rupture. The clot can completely block blood flow through the vessel, causing a heart attack.
Healthy artery

Plaques begin to form in the lining of an artery.

The artery becomes more abnormal with plaque growth.

One of these plaques may rupture.

A blood clot forms at the rupture, blocking the artery and limiting blood flow.
What is all the concern about with cardiovascular diseases and aren’t we making improvements?
Heart Disease in Women

- 6,600,000 US women (MI, angina)
- >440,000 heart attacks/year
- >500,000 die each year
- #1 killer of women (>10x more than breast cancer)

1 in 3 women die of heart disease
## Women’s Top Health Risks

<table>
<thead>
<tr>
<th>Perception</th>
<th>Cause of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Cancer 46%</td>
<td>Heart Disease 34%</td>
</tr>
<tr>
<td>Unspecified Cancer 16%</td>
<td>Other Cancer 12%</td>
</tr>
<tr>
<td>Heart Disease 4%</td>
<td>Lung Cancer 5%</td>
</tr>
<tr>
<td>AIDS 4%</td>
<td>Stroke 8%</td>
</tr>
<tr>
<td>Uterine/Ov Cancer 3%</td>
<td>Breast Cancer 4%</td>
</tr>
</tbody>
</table>
Heart Disease is Different for Women

- Breathlessness
- Chronic fatigue
- Dizziness
- Edema
- Fluttering
- Gastric upset
63% of women . . .

who died suddenly of CHD had NO previous symptoms.
What are the Challenges for Women with Heart Disease?

• Delays in symptom recognition and Rx
• Misdiagnosis
• Treatment
• Less counseling and risk factor control
• Less representation in clinical trials
Prevention is Most Powerful Rx

EVERYONE should know their:

- Blood Pressure (BP)
- Weight (BMI)
- Cholesterol (lipid profile)
- Blood Sugar
- Smoking?
- Family History
- Framingham Risk Score
Hypertension

- New JNC VII guidelines May 2012
- Treat with drug(s) if:
  - >140/90
  - >130/80 (diabetes/kidney dis)
- "Pre-hypertension"
  - 120-139/80-89
  - Lifestyle changes
BMI: Body Mass Index

- WEIGHT (kg)/HEIGHT (M²)
  - Ideal: <25
  - Overweight: 25-30
  - Obese: >30

● WAIST MEASUREMENTS
  - <35” (women)
  - <40” (men)
122 Million US Adults are Overweight or Obese

Portion Control
Cholesterol Goals

- Total: <200
- LDL: <130
  - <100 *optimal
- HDL: >50
- Triglycerides: <150
How to read a nutrition label

Keep these simple tips in mind:

1. Check the serving size.
   How many servings are in the container?

2. Check the calories in one serving.

3. Check the % Daily Value. *
   5 % or less is low
   20 % or more is high

* Percent Daily Value (DV) in one serving is based on a 2,000-calorie diet for adults. For example, the recommended goal for dietary fiber is 25 grams, so 1 gram is 4% DV. Your DV may be higher or lower, depending on your calorie needs.

** Keep intake of saturated fat and trans fat as low as possible. All fats are high in calories.

Nutrition Facts

Serving Size 16 Crackers (31 g)
Servings Per Container About 9

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories from Fat 50</th>
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</thead>
<tbody>
<tr>
<td>Total Fat 6 g**</td>
<td>% Daily Value* 9%</td>
</tr>
<tr>
<td>Saturated Fat 1 g</td>
<td></td>
</tr>
<tr>
<td>Trans Fat 1 g</td>
<td></td>
</tr>
<tr>
<td>Polyunsaturated Fat 2 g</td>
<td></td>
</tr>
<tr>
<td>Monounsaturated Fat 2 g</td>
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</tr>
<tr>
<td>Cholesterol 0 mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium 270 mg</td>
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<tr>
<td>Total Carbohydrate 21 g</td>
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<tr>
<td>Dietary Fiber 1 g</td>
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</tr>
<tr>
<td>Sugars 3 g</td>
<td></td>
</tr>
<tr>
<td>Protein 8 g</td>
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</tr>
<tr>
<td>Vitamin A 4%</td>
<td>4%</td>
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<tr>
<td>Vitamin C 2%</td>
<td>2%</td>
</tr>
<tr>
<td>Calcium 20%</td>
<td>4%</td>
</tr>
<tr>
<td>Iron 4%</td>
<td></td>
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</tbody>
</table>

Limit nutrients shown in orange
Get enough of nutrients shown in green

Adapted from FDA, Center for Food Safety and Applied Nutrition, 2006
Diabetes . . . and Metabolic Syndrome

Diabetic women 3-4X more likely than men to develop heart disease.

“Glucose intolerance”
•“”Pre-diabetes”
•“Insulin resistance”
•Metabolic syndrome
Smoking

“For women younger than 50 years, the majority of CHD risk is attributable to smoking. Risk increases with number of cigarettes smoked and duration of smoking.”

-Office of the Surgeon General, March 2001
What are traditional measures?

Risk Factors:

• Family history, gender, smoking, blood pressure, weight, high cholesterol, diabetes, stressful lifestyle, men over age 45, postmenopausal women, sedentary lifestyle, obesity.

• Hs CRP-blood test that detects inflammation

• NONE of these methods are precise at predicting who’s going to have a heart attack.
Calcium Scoring

Recent years, medical science is making a case that a CT scan, known as calcium scoring is an important tool of early detection. The 5 minute scan has been shown to identify patients at risk for a heart related death, particularly beneficial to women.
Diagnostic Tests for Heart Disease

- No test is perfect
- Results depend
- Imaging improves accuracy of stress tests
- Positive test or high clinical suspicion = CATH
Stress Testing in Women

- Lower prevalence of CAD
- Stress ECG less accurate
- Inadequate exercise
- Women are different
- Lower numbers in clinical trials
What can you do to reduce your risk of a heart attack?

• Drop your LDL cholesterol level to a lower target number
• Get into a cardiac rehabilitation program
• Respect your medication
• Be alert for warning signs and be ready to seek help
• Ask your doctor if you need a heart device
Exercise Prescription

Exercise guidelines: moderately intense physical activity
30-60 min/day
Benefits of Exercise

- Lowers weight and maintains loss
- Lowers cholesterol, triglycerides
- Raises HDL
- Lowers BP
- Protects from diabetes
- Lowers risk of premature CV death
HEART DISEASE doesn’t CARE WHAT YOU WEAR

IT'S THE #1 KILLER OF WOMEN

Being a woman doesn't protect you from heart disease. Try these risk factors on for size: Do you have high blood pressure? High cholesterol? Diabetes? Are you inactive? Are you a smoker? Overweight? If so, this could damage your heart and lead to disability, heart attack, or both.

Talking to your doctor to get answers may save your life. The truth is, it's best to know your risks and to take action now.